



Managing Discarded Mercury-Containing Devices (MCDs) in Florida

A Fact Sheet For Florida Businesses and Government Agencies

Mercury-containing devices are electrical products or other devices, excluding batteries and lamps, that contain mercury as a necessary component for their operation. Some examples include mercury thermostats, thermometers, electric switches and relays, marine float switches and manometers. Due to the decline of mercury use in batteries and lamps and the larger quantities of this toxic heavy metal found in these products, mercury-containing devices are expected to be the largest source of mercury in municipal solid waste by the year 2000.

Mercury-containing devices do present special disposal considerations due to the quantity of mercury they contain and since they are usually considered to be hazardous wastes when disposed of. The amount of mercury in a device is relatively large. For example, a thermostat can contain as much mercury as 75-100 fluorescent or other mercury-containing lamps. Mercury is a toxic metal that in its various forms can accumulate in living tissue and cause adverse health effects. When a device is broken and is disposed of in a solid waste landfill or incinerator, the mercury can contaminate the air, surface water, and ground water. Mercury contamination in Florida is most evident from the Department of Health's warnings of high mercury levels in fish in a number of our lakes and in the Everglades.

Because of this, these types of devices, including those from households, have been banned from disposal at solid waste facilities, including landfills and incinerators, since January 1, 1996, in any quantity.

Florida businesses and other generators discarding mercury-containing devices ("Generators") have two options for managing them: either recycling or hazardous waste disposal. For either of these options, if a pound or more of mercury is contained in a shipment container (e.g., a little more than 100 mercury thermostats would contain this much mercury), the generator will need to ship the devices in accordance with the US DOT Hazardous Material Regulations.

- 1) You are encouraged to recycle mercury-containing devices by following the Chapter 62-737, Florida Administrative Code regulations outlined on the back of this fact sheet. Devices destined for recycling and managed in accordance with these regulations are considered to be universal wastes in Florida and do not count toward your facility's hazardous waste generator status. In addition to the following requirements and guidelines, check with the receiving storage or recycling facility for its guidelines on packaging and transportation. A list of recycling facilities in Florida can be obtained by calling 1-800-741-4337. ***RECYCLING IS THE RECOMMENDED MANAGEMENT OPTION FOR THESE DEVICES!***
- 2) Mercury-containing devices may be managed at permitted hazardous waste treatment and disposal facilities and would count toward your facility's hazardous waste generator status. Before they can be disposed of at a hazardous waste landfill, however, they will need to be shipped and treated at a permitted hazardous waste facility (e.g., a mercury recovery/reclamation facility) to remove most of the mercury in accordance with the EPA's land disposal restriction regulations.

MERCURY-CONTAINING DEVICE RECYCLING REQUIREMENTS & GUIDELINES

Generator Requirements

- Does not place used devices from business, industry, or institutions in the regular trash.
- Stores devices in an area and in a manner that will prevent them from breaking. *Does not stuff too many or too few devices into the shipping container and use adequate cushioning material for packing.*
- Labels the devices or each container as "Spent Mercury-Containing Devices for Recycling" or "Universal Waste Mercury Devices", or "Waste (or Used) Mercury Devices". *For thermostats, substitutes "Thermostats" for "Devices" in the last two labeling categories.*
- If devices are accidentally broken, immediately contain the breakage and store them in a tightly sealed container. It is recommended that you mark the container as "Spent Broken Mercury-Containing Devices For Recycling".
- Trains employees in the proper device handling, packaging and emergency cleanup and containment procedures. Non-device residues containing mercury and that are generated as a result of a device cleanup are to be managed as hazardous waste.
- Does not intentionally break, treat or dispose of devices.
- If on-site storage is not feasible, devices may be transported to a central accumulation point at one of your own facilities, to a registered handler facility, or directly to a permitted recycling facility. If you transport your own devices, you also need to comply with the Department's transporter regulations. *See the Transportation Requirements and Transporter Requirements below.*

Handler Facility (Non-generator) Requirements

- Annually registers with the Department as a small or large quantity handler and receives or renews a DEP ID number.
- *Small quantity handler accumulates up to 100 kilograms (220 pounds) of devices indoors at any one time for no longer than one year.*
- *A large quantity handler facility accumulating more than 220 pounds of devices at any one time must also register as such and submit to the Department: a one-time \$1,000 registration fee, an operational plan, and a closure plan including financial assurance.*
- Follows other requirements listed above for Generators.

Record Keeping Guidelines for Generators & Handlers

- Keep receipts for shipments of devices off-site to show DEP and local inspectors that devices were properly handled. Receipts should have the following information: the quantity of devices shipped or received, the date of shipment or receipt, and the name and address of the handler or recycling facility receiving the shipped devices.
- Records of receipts and shipments of devices are required for large quantity handler facilities (including generators) and shall be kept for 3 years from the date of shipment or receipt

Reverse Distribution Program Requirements

- Sponsored by a device manufacturer or distributor (which may include a business distributing devices to its facilities).
- Sponsor assumes responsibility for collection and recycling of discarded devices.
- Annual registration with the Department, receipt or renewal of a DEP ID Number, and submission of a program description including all participating transporters, handlers and recycling facilities.

Transportation Requirements

- When shipping devices within Florida, a hazardous waste manifest and a licensed hazardous waste transporter are not required for shipments to a handler or recycling facility within Florida in accordance with these requirements
- When shipping out of Florida, follow the intermediate and receiving states' requirements.
- When shipping into Florida, you may use a shipping paper *unless* your state or an intermediate state requires a hazardous waste manifest; then you must follow those states' requirements.

Transporter/Transfer Facility Requirements

- Annually registers with the Department and receives or renews its DEP ID number.
- Uses only totally enclosed trucks in good condition.
- May store properly packaged devices on the truck or at another area of a registered transfer facility for up to 10 days.
- Trains drivers in proper handling, packaging and emergency cleanup and containment procedures & keeps these procedures on the trucks.
- Complies with any applicable Department of Transportation (DOT) regulations, including the Hazardous Material Regulations.

For a listing of recycling facilities or for further information or questions, contact the Florida Department of Environmental Protection's Hazardous Waste Management Section at:

1-800-741-4DEP (4337) or at its Internet website at www.dep.state.fl.us
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